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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,340	03/05/2002	Chang-Su Kim	INTV.009A	7685
4586	7590	11/02/2004	EXAMINER	
ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLICOTT CITY, MD 21043			VO, TUNG T	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/092,340

Applicant(s)

KIM ET AL.

Examiner

Tung T. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/02, 09/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 10/22/02; 10/07/02; 09/04/02 has been considered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-9, 11, 13-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Normile et al. (US 5,461,679).

Re claims 1, 8-9, 11, 15-16, and 20-22, Normile discloses an encoding apparatus for carrying out a method of enhancing error resiliency in an encoded video transmission (figs. 8a, 8b and 9) comprising:

means (816 of fig. 8a, e.g. a signal (853 of fig. 8b) is sent to block (816) to indicate that an entirely new intra frame must be computed for the input image to preserve the quality of the sequence) receiving an indication that a first frame corresponds to a scene change (815 of fig. 8b, e.g. an indication signal called decision (853 of fig. 8b) is sent to Intra/Inter/Still/Add (816 of fig. 8a) ) that determines the first frame, intra frame, correspond to a scene change, GOP, fig. 7a);

means (802, 803, 804 of fig. 8a, e.g. the I frame is being coded as a first frame of the GOP based on the result (signal) (853 of fig. 8b) of the scene change detector (815 of fig. 8a))

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intra-coding the first frame (703 of fig. 7a) at least partly in response to receiving the indication that the first frame corresponds to a scene change (fig. 8b);

means ( 802, 803, 803 of fig. 8a, e.g. the encoder encodes the next intra frame (702 of fig. 7a) for the next scene change) automatically intra-coding the next consecutive frame;

means (805 of fig. 8a) for providing/transmitting the intracoded first frame and the intracoded next consecutive frame (701, 702, 703 of fig. 7a), wherein the encoding apparatus can be implemented (fig. 4) in a computer system or personal computer as desktop computer (col. 9, lines 34-44) including integrated circuit (fig. 4).

Re claims 3, 13, 17, Normile further discloses wherein the first frame is designated as an I-frame as intra-frame (703 of fig. 7a).

Re claim 4, Normile further discloses wherein the next consecutive frame is designated as an I-frame as intra-frame (702 of fig. 7a).

Re claims 5, Normile further discloses wherein the next consecutive frame is not a scene change frame (another I frame as still picture, col. 14, lines 21-25, e.g. detecting the still images are present in the sequence in a video images).

Re claim 6, Normile further discloses wherein a frame immediately subsequent to the next consecutive frame is inter-coded (711 and 713 of fig. 7a).

Re claims 7 and 14, Normile further discloses wherein the indication that the first frame corresponds to a scene change is read from a file (fig. 7a, e.g. ID indicates type of frame, which is the intra frame or inter frame, see also col. 14, lines 37-50).

Re claim 18, Normile further discloses wherein the second frame (713 of fig. 7a, e.g. considered the inter frame(713) as second frame that has an activity level that would cause it to be inter-coded in the absence of the first instruction (e.g. a decision signal, 853 of fig. 8b).

Re claim 19, Normile further discloses inter-coding a third-frame based at least in part on its relative visual motion, the third frame immediately subsequent to the second frame (712 of fig. 7a, e.g. the third frame (712) is inter-coded based on the relative visual motion from the intra frame (702) and inter-frame (713) as described in the figure 7 of Normile).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Normile et al. (US 5,461,679) as applied to claims 1 and 8, and further in view of Henning (US 2002/0085637).

Re claims 2, 10, and 12, Normile teaches the transmission of the intracoded first frame and the intracoded next consecutive frame is MPEG standard but Normile does not particularly teach or suggest the transmission of the intracoded first and next consecutive frames is MPEG-4 compliant and the video encoding apparatus/system is a cellular phone, a personal digital assistant (PDA) as claimed.

However, Henning teaches the encoder and decoder (figs. 2 and 4) for encoding and decoding video signal complying MPEG-4 standard ([0004], page 1), which means the transmission of the intracoded first and consecutive frames is MPEG-4 compliant, wherein the encoder and decoder can be implemented in a telecommunications devices ( 15, 25, 20 of fig. 1) including a cellular phone (25) and PDA ([0016], page 1). Therefore, taking the teachings of Normile and Henning as a whole, it would have been obvious to one of ordinary skill in the art to incorporate the teachings such as MPEG-4 compliant, cellular phone, and PDA of Henning into the MPEG encoder and decoder of Normile for the same purpose of encoding and decoding the video signal complying the MPEG-4. Doing would provide an efficient encoding method of error resilience before transmission and an efficient decoding method of error concealment while receiving an encoded video stream.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Carr (US 6,118,823) discloses a control scheme for shared use dual port predicted error array.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung T. Vo whose telephone number is (703) 308-5874. The examiner can normally be reached on 6:30 AM - 3:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**TUNG T. VO**  
**PATENT EXAMINER**

Tung T. Vo  
Primary Examiner  
Art Unit 2613

T.Vo